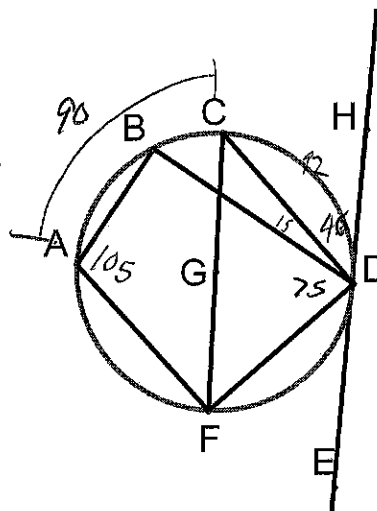


[illegible]

- $$\begin{array}{l}
 1. \ m\widehat{AB} = \underline{90} \qquad 95 = \frac{1}{2}(100 + \widehat{AB}) \odot J \\
 2. \ m\widehat{CB} = \underline{80} \qquad \begin{array}{l} 360 \\ - 280 \end{array} \qquad m\widehat{AB} = 90 \\
 3. \ m\angle GBC = \underline{60} \qquad \frac{1}{2}(120) \\
 4. \ m\angle HBC = \underline{40} \qquad \frac{1}{2}80 \\
 5. \ m\angle BAC = \underline{40} \qquad \frac{1}{2}80 \\
 6. \ m\angle KBC = \underline{140} \qquad \frac{1}{2}(280) \\
 7. \ m\angle AGB = \underline{105} \qquad \frac{1}{2}(90 + 120) \\
 8. \ m\angle ALB = \underline{35} \qquad \frac{1}{2}(90 - 20) \\
 9. \ m\angle DAC = \underline{10} \qquad \frac{1}{2}(20) \\
 10. \ m\angle DJC = \underline{20}
 \end{array}$$

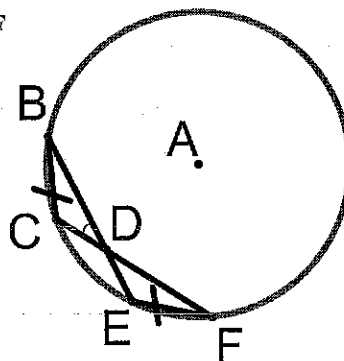
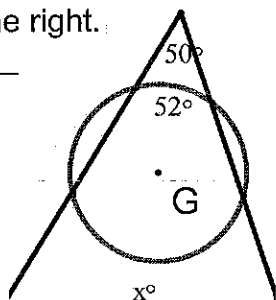
11. $m\angle BDF = \underline{75}$ $180 - 105$ \overline{FC} is the diameter
 12. $m\angle CDF = \underline{90}$ \longleftrightarrow
 13. $m\angle CDB = \underline{15}$ \overline{DE} is tangent
 14. $m\angle CFD = \underline{46}$ $\hat{\angle} 92$ $m\widehat{AC} = 90^\circ$
 15. $m\angle BDH = \underline{61}$ $46 + 15$ $m\widehat{CD} = 92^\circ$
 16. $m\widehat{DF} = \underline{88}$ $180 - 92$ $m\angle A = 105^\circ$



17. $m\angle CDB = \underline{31^\circ}$ $\angle(31+31)$ $BC = EF$
 18. $m\angle BDF = \underline{149^\circ}$ $180-31$ $\widehat{mCB} = 31^\circ$

19. $x = 152$

$$50 = \frac{1}{2}(x - 52)$$



For #s 17 & 18

$r = 12$

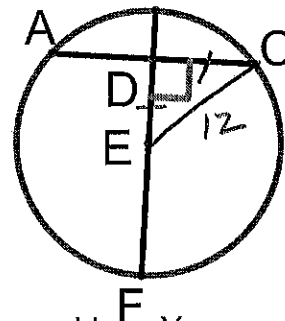
B Mrs. Hayden

Use the circle to the right to find the following:

20. $AC = 12\sqrt{2}$

$6\sqrt{2}$

$AD = DE$



Use the circle to the right to find the following:

(Try to focus on the two segments that are involved in the problem. You may want to redraw the picture with just those segments.)

21. $x = 4$

$AB = 16$

$BC = 4x$

$16 = 4x$
 $4 = x$



\overline{AB} & \overline{BC}
are tangents

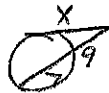
22. $x = 12$

$AB = x$

$HB = 9$

$HD = 7$

$x^2 = 9 \cdot 16$



23. $x = 2$

$HB = x$

$HD = 4$

$BG = 3$

$EG = 1$

$3(4) = x(x+4)$

$12 = x^2 + 4x$

$0 = x^2 + 4x - 12$

$(x+6)(x-2)$



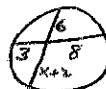
24. $x = 2$

$AF = 6$

$EF = 3$

$FG = 8$

$FD = x + 2$



$6(x+2) = 3 \cdot 8$

$x+2 = 4$

$x = 2$

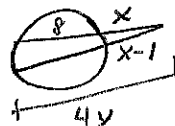
25. $x = 4$

$BG = x$

$GE = 8$

$BH = x - 1$

$BD = 4x$



$4x(x-1) = x(x+8)$

$4x^2 - 4x = x^2 + 8x$

$3x^2 - 12x = 0$

$3x(x-4) = 0$

Use the circle to the right to find the following:

26. Find the diameter. 15 $9^2 + 12^2 = 15^2$

27. $m\angle ACB = 60^\circ$. Find the $m\widehat{DB}$. 120°

28. Use SOHCAHTOA to find the $m\widehat{EA}$. 73.7°

$\tan D = \frac{9}{12}$

$D = 36.9^\circ \times 2$

